An Essay
on
Digestion

Respectfully Submitted
To the Faculty of the
Homœopathic Medical College
of Pennsylvania
on the
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one thousand eight hundred and fifty three
by
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Digestion

The digestive aparatus consists of the alimentary canal and its appendages. The alimentary canal includes the mouth. pharynx. oesophagus Stomach pylorus duodenum & jejunum, ileum, colon and rectum

Its appendages are the tongue. teeth, salivary glands of the mouth, liver and pancreas Mucous folicles &c. It is lined throughout its entire length by a mucous membrane which is also continuous through the ducts to the glandular appendages. The office of the mouth is to receive the food destined for nutrition and with the teeth the coarse particles are broken down to allow the more perfect and ready commingling of the salivary fluid and a better adaptation to the action of the stomach. When the food is thus comminuted and commingled it is rolled by the tongue into a ball and carried to the posterior part of that organ where it is grasped by the constrictor muscles of the pharynx and propelled into

the oesophagus through which it is involuntarily forced by muscular contraction into the stomach, Within this organ the food is submitted to another process of comminution and is made to circumnavigate its internal parieties till every portion of it has come in contact with the gastric juice; after which it is conveyed through the pyloric orifice into the duodenum where it is again metamorphosed by coming in contact with the hepatic and pancreatic secretions, and from chyme it becomes chyle and the process is called chylification while the transformation in the stomach into chyle is called chymification, The chyle is taken up by the lacteal vessels as the now comminuted and transformed mass is propeled by peristaltic motion along the intestinal tube, continually revolving and presenting each particle in turn to the extremety of the lacteals till the nutritious portion is wholly absorbed

The length of the intestine is usually computed to be about thirty six feet in length and the nutritious portion of the chyle is probably not wholly appropriated until it has passed nearly the entire length of this canal and some physiologists contend that the function of absorption is carried on to some extent in the colon, it being a mooted point whether the follicles of Lieberkuhn which exist throughout the intestine are absorbents or not. The non nutritious portion is discharged per ani as effete matter.

We will now return to the chyle in the lactiferous tubes where it is thought by some to undergo a still further metamorphosis. others suppose that these tubes act only as conductors to the receptaculum chyli: however that may be it is conveyed to that receptacle through which it passes to the thoracic duct which duct carries it to the junction of the left subclavian and internal jugular veins where it

becomes part and parcel of the blood contained in them and with it is transmitted to the lungs there to receive the "breath of life" and is changed from the dull venous color to the brilliant crimson fluid that courses through the arteries giving up its constituents to kindred elements, and bringing back the useless portions through the veins to the heart thence it is forced to the lungs to again receive newness of life.

The subject of digestion and nutrition is one so replete with interest that volumes might be transcribed in delineating its various stages and giving it the full description its importance demands and not only should the student and practitioner of Medicine make themselves well acquainted with its harmonious laws, but its vast importance requires that the result of infringing on those laws should be printed out to and understood by every individual. On

the due performance of these functions which are dependent on each other, depends the integrity of all the other functions of the vital economy, and any thing that tends to produce discord there shakes the foundation of healthy action in all the tissues and component parts of the animal fabric

But alas! this is too little heeded by a large majority of mankind, not excepting many whose precepts are far different from their example, The causes which produce indigestion are as numerous almost as the diseases consequent thereon and not among the least of these is over loading the stomach - as it is called by swallowing too much at a time, thereby making and excessive demand on the vital forces of that organ, consequently diminishing their power by the reaction of too much effort, when of course if food is taken into the stomach it

is acted but feebly if at all. Any other excessive stimulus will produce the same result or if too powerful will prevent the function from being performed at all

The use of spirituous liquors, tobacco opium &c in large quantities will diminish the digestive powers. also the whole catalogue of drugs which only serve as a general thing to increase the morbid action they are designed to correct

I might go on ad infinitum with the causes and effects of impaired digestion but the subject is better adapted to a volume than a single essay, therefore I will not extend the subject farther here. but respectfully submit what I have written to the clemity of the Faculty of the Homoeopathic Medical Colley of Pennsylvania trusting that it will be as favorably regarded as their charity will allow

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